

Please delete the present Abstract of the Disclosure.

Please add the following new Abstract of the Disclosure:

A FLEXIBLE DIGITAL SIGNAL PROCESSOR

The invention describes a digital signal processor to execute at least one dedicated operation of a dedicated system such as an digital front-end of any digital subscriber line system.

The digital signal processor is a flexible digital signal processor and comprises therefor:

- an arithmetic logical unit that comprises a plurality of inputs to receive input data; and a predefined interconnected plurality of basic operators coupled to the plurality of inputs for execution of a respective basic operation on the received input data; and a plurality of control inputs coupled between the predefined plurality of basic operators and a program controller; and

- the program controller to activate via the plurality of control inputs, for at least one phase of a control program of the program controller and under control of an actual phase of the at least one phase, one or more basic operators of the plurality of basic operators and to enable thereby the one or more basic operators to execute its respective basic operation and to realize therewith at least part of a dedicated operation of the dedicated system; and

- the arithmetic logical unit further comprises a plurality of outputs to receive, upon realization of each phase of the at least one phase of the control program, an output data whereby the output data represent a result of the execution of the at least one dedicated operation of the dedicated system.~~(Figure 1)~~